

**REMARKS**

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-46 will be pending. By this amendment, claims 1-46 have been amended. No new matter has been added.

**Objections to Claims 1-46**

In Section 2 of the Office Action, claims 1 – 46 stand objected to for informalities. Claims 1-46 have been amended to address the objection.

**§ 101 Rejection of Claims 1-46**

In Section 4 of the Office Action, claims 1-46 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-46 have been amended to address the rejection.

Accordingly, it is submitted that the Examiner's rejection of claims 1-46 based upon 35 U.S.C. §101 has been obviated and withdrawal thereof is respectfully requested.

**§ 102 Rejection of Claims 1-17, 20-40, and 43-46**

In Section 6 of the Office Action, claims 1-17, 20-40, and 43-46 stand rejected under 35 U.S.C. §102(e) as being anticipated by Zinky *et al.* (U.S. Patent No. 6,480,879; hereinafter referred to as "Zinky"). Independent claims 1 and 24 have been amended to clarify and to round out the scope of protection to which Applicant is entitled.

The structure of processor claim 1, as presented herein, includes:

“A processor for one or more communication networks including middleware, the processor comprising  
*an application programming interface* configured as a data model describing quality-of-service contracts and quality-of-service adaptation paths as specified by quality-of-service aware mobile multimedia applications using said application programming interface, in order to manage quality-of-service and mobility-aware network connections with other applications,  
wherein a quality-of-service adaptation path defines an adaptation policy identifying quality-of-service specifications and allows quality-of-service changes.”

(emphasis added)

Accordingly, in one embodiment of claim 1, the processor includes middleware having application programming interface (API) to manage quality-of-service. Specifically, the API includes a quality-of-service adaptation path defining an adaptation policy identifying quality-of-service specifications and allows quality-of-service changes. See *Specification, page 21, line 31 to page 22, line 3.*

Although Zinky generally discloses a framework for providing quality-of-service (QoS) requirements, Zinky’s requirements are targeting distributed applications using a Remote Procedure Call (RPC) stall communication. By contrast, embodiments of the present invention are targeting distributed multimedia applications where the requirements for QoS differ significantly from QoS requirements proposed by Zinky.

For example, embodiments of the present invention (for which claim 1 is one embodiment) suggest the use of middleware that can handle QoS and QoS adaptations consistently for all applications that are using the middleware. Thus, the API of claim 1 manages the QoS requirements of all applications and implements an overall solution. By contrast, Zinky only allows local adaptations of a single communication entity on an RPC level rather than an

application level. Specifically, Zinky fails to teach or suggest the concept of a QoS adaptation path disclosed in claim 1. Zinky merely indicates that a delegate can change its behavior based on the current active regions of the QoS contract. See *Zinky, column 8, lines 48-56*.

By contrast, the embodiment of claim 1 suggests the use of a QoS adaptation path that defines an adaptation policy identifying QoS specifications and allows QoS changes. Therefore, the adaptation decisions can be made by the middleware, which has the application requirements, and thus, can negotiate with communication peers to generate adaptation paths. The middleware measures the actual quality of service and solves any QoS problems by deciding which of the possible adaptations to perform. Zinky, however, measures QoS parameters and compares them to the QoS regions specified by the application, leaving the adaptation locally to the application.

Based on the foregoing discussion, it is submitted that claim 1 should be allowable over Zinky. Since independent claim 24 closely parallels, and recites substantially similar limitations as recited in, independent claim 1, claim 24 should also be allowable over Zinky. Further, since claims 2-17, 20-23, 25-40, and 43-46 depend from one of claims 1 and 24, claims 2-17, 20-23, 25-40, and 43-46 should also be allowable over Zinky.

Accordingly, it is submitted that the rejection of claims 1-17, 20-40, and 43 – 46 based upon 35 U.S.C. §102(e) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

#### § 103 Rejection of Claims 18, 19, 41, and 42

In Section 30 of the Office Action, claims 18, 19, 41, and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Zinky in view of Cardei *et al.* ("Hierarchical

Architecture for Real-Time Adaptive Resource Management"; hereinafter referred to as "Cardei").

Based on the foregoing discussion regarding claims 1 and 24, and since claims 18, 19, 41, and 42 depend from one of claims 1 and 24, claims 18, 19, 41, and 42 should be allowable over Zinky. Further, since Cardei is cited merely for the functionality of downloading plug-ins corresponding to a given version of a data model which cannot be handled by the application handler unit, it is maintained that Zinky and Cardei, individually or in combination, fail to teach or suggest all the limitations of claims 18, 19, 41, and 42.

Accordingly, it is submitted that the rejection of claims 18, 19, 41, and 42 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

### Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-46 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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